

CLAIMS

I claim:

1. A camera system for connection to a web server comprising:

a video camera;

a processor that periodically uploads images captured by the video

camera in accordance with one of a plurality of motion detection algorithms, a

first motion detection algorithm capturing a current image frame when a pixel

comparison between successive image frames exceeds a predetermined

threshold.

2. The camera system of claim 1 wherein the processor uploads the

current image frame at programmed intervals.

3. The camera system of claim 1 wherein the plurality of motion detection

algorithms further comprises a second motion detection algorithm that captures a

stable frame after a certain duration has elapsed since the predetermined

threshold has been exceeded.

4. The camera system of claim 1 wherein the plurality of motion detection

algorithms further comprises a third motion detection algorithm that captures a

recent motion frame that occurs a predetermined time period prior to the

occurrence of a stable frame, the stable frame occurring after a certain duration

has elapsed since the predetermined threshold has been exceeded.

5. The camera system of claim 3 wherein the plurality of motion detection

algorithms further comprises a third motion detection algorithm that captures a

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3 recent motion frame that occurs a predetermined time period prior to the
4 occurrence of the stable frame.

1 6. The camera system of claim 4 wherein the processor includes a circular
2 buffer to successively store motion captured in image frames in which the
3 predetermined threshold is exceeded.

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1 7. A web camera system for uploading pictures to a web site comprising:
2 a video camera;
3 a processor coupled to the video camera, the processor including:
4 a current frame buffer to hold a current image captured by the video
5 camera;
6 a previous frame buffer to hold a previous image captured prior to
7 the current image;
8 a candidate buffer to hold a most recent image for periodic
9 uploading to the web site;
10 logic circuitry to perform a pixel comparison between the current
11 image and the previous image, the logic circuitry asserting a motion signal when
12 the pixel comparison exceeds a predetermined threshold;
13 the processor operating according to one of a plurality of modes, in a first
14 mode of operation the current image is loaded into the candidate buffer
15 responsive to the motion signal.

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1 8. The web camera system of claim 7 wherein in a second mode of
2 operation the candidate buffer is loaded with the current image after a certain
3 duration has elapsed following assertion of the motion signal.

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9. The web camera system of claim 8 further comprising:
a circular buffer to store successive current images when the motion
signal is asserted;
in a third mode of operation the processor selecting one of the current
images stored in the circular buffer for loading into the candidate buffer once the
motion signal has been de-asserted for a predetermined time.

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10. The web camera system of claim 7 further comprising:
2 a circular buffer to store successive current images when the motion
3 signal is asserted;
4 in a third mode of operation the processor selecting one of the current
5 images stored in the circular buffer for loading into the candidate buffer once the
6 motion signal has been de-asserted for a predetermined time.

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11. A method of operating a web camera system comprising:
capturing a current image frame from a video camera;
asserting a motion detection signal when a pixel comparison between the
current image and a previous image frame exceeds a predetermined threshold;
storing in a buffer successive image frames captured from the video
camera while the motion detection signal is asserted;
de-asserting the motion detection signal when the predetermined
threshold is no longer exceeded for the current image frame;
selecting from the buffer a certain one of the successive image frames as
a candidate picture once the motion detection signal has been de-asserted for a
certain duration; and
uploading the candidate picture to a web site.

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12. The method according to claim 11 wherein the buffer is a circular buffer having a capacity to store a plurality of image frames.

1 13. The method according to claim 11 wherein the uploading step is
2 performed at periodic time intervals.

1 14. The method according to claim 11 wherein the certain one of the
2 successive image frames is stored a predetermined time before a last image
3 frame is stored in the buffer prior to de-assertion of the motion detection signal.

1 15. A method of operating a web camera system comprising:
2 capturing a current image frame from a video camera;
3 asserting a motion detection signal when a pixel comparison between the
4 current image and a previous image frame exceeds a predetermined threshold;
5 storing in a buffer successive image frames captured from the video
6 camera while the motion detection signal is asserted;
7 de-asserting the motion detection signal when the predetermined
8 threshold is no longer exceeded for the current image frame;
9 selecting as a candidate picture either:

10 (i) the current image when the motion detection signal is
11 asserted;

12 (i) the current image a first duration following de-assertion of
13 the motion detection signal; or

14 (ii) a certain one of the successive image frames from the
15 buffer once the motion detection signal has been de-
16 asserted for a second duration; and

17 uploading the candidate picture to a web site.

1 16. The method according to claim 11 wherein the buffer is a circular buffer
2 having a capacity to store a plurality of image frames.

1 17. The method according to claim 11 wherein the uploading step is
2 performed at periodic time intervals.

1 18. The method according to claim 11 wherein the certain one of the
2 successive image frames is stored a predetermined time before a last image
3 frame is stored in the buffer prior to de-assertion of the motion detection signal.

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